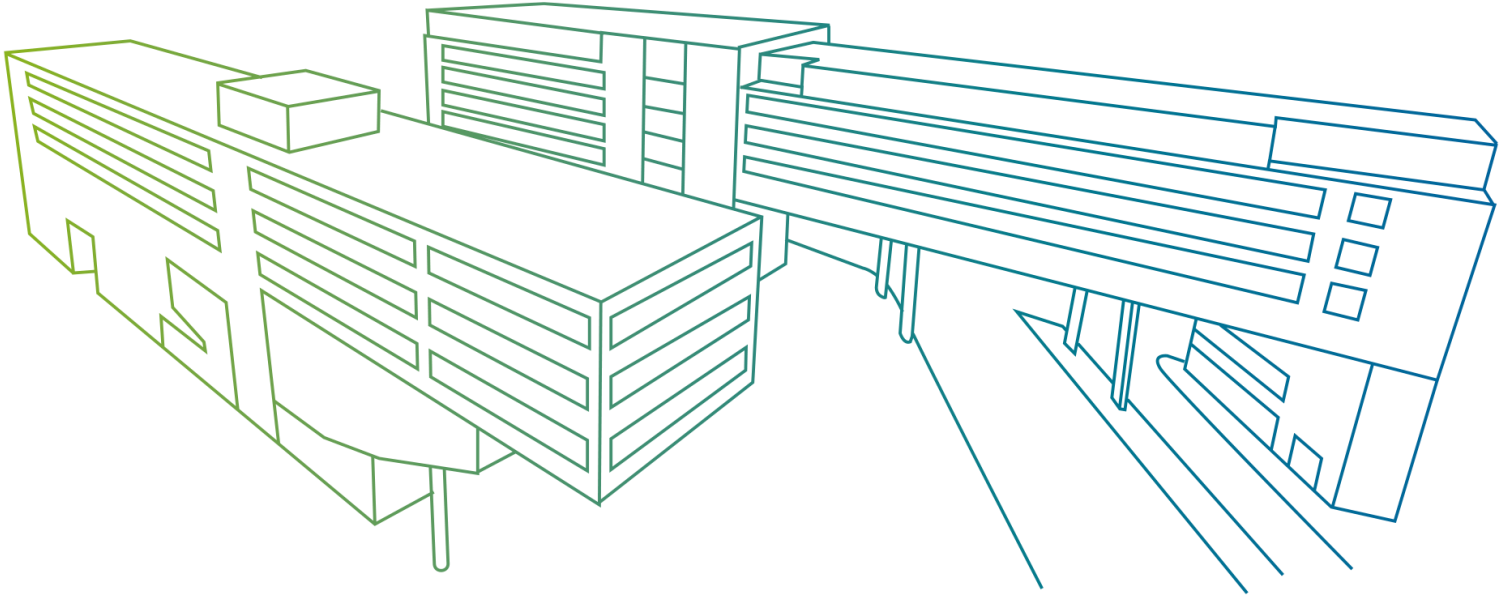


FH University of Applied Sciences TECHNIKUM WIEN

VAIDS-DSML exercise block 9

Jasmin Duvivié

simple linear regression

- problem

- 1599 samples of wines
- 11 features
- 1 target: quality
- 1 feature as linear regressor: alcohol

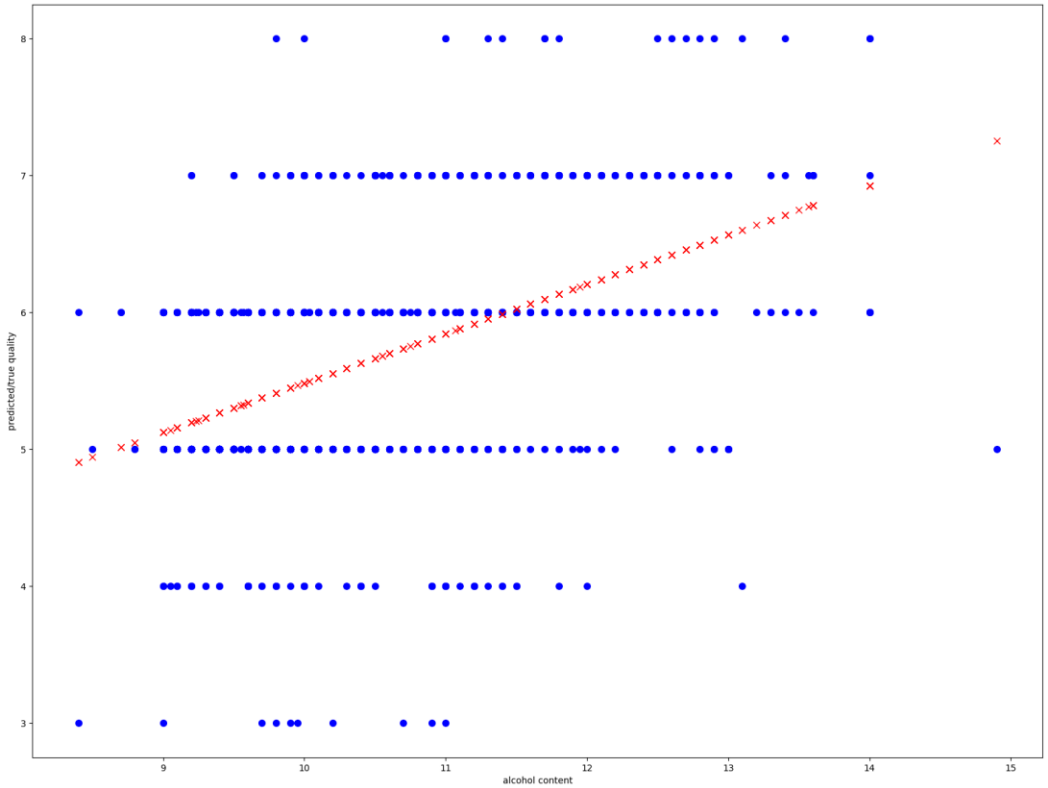
- solution

- use sklearn.linear_model
- construct model manually
- plot observed and predicted values for both models
- compare plots and ordinary least squares parameters

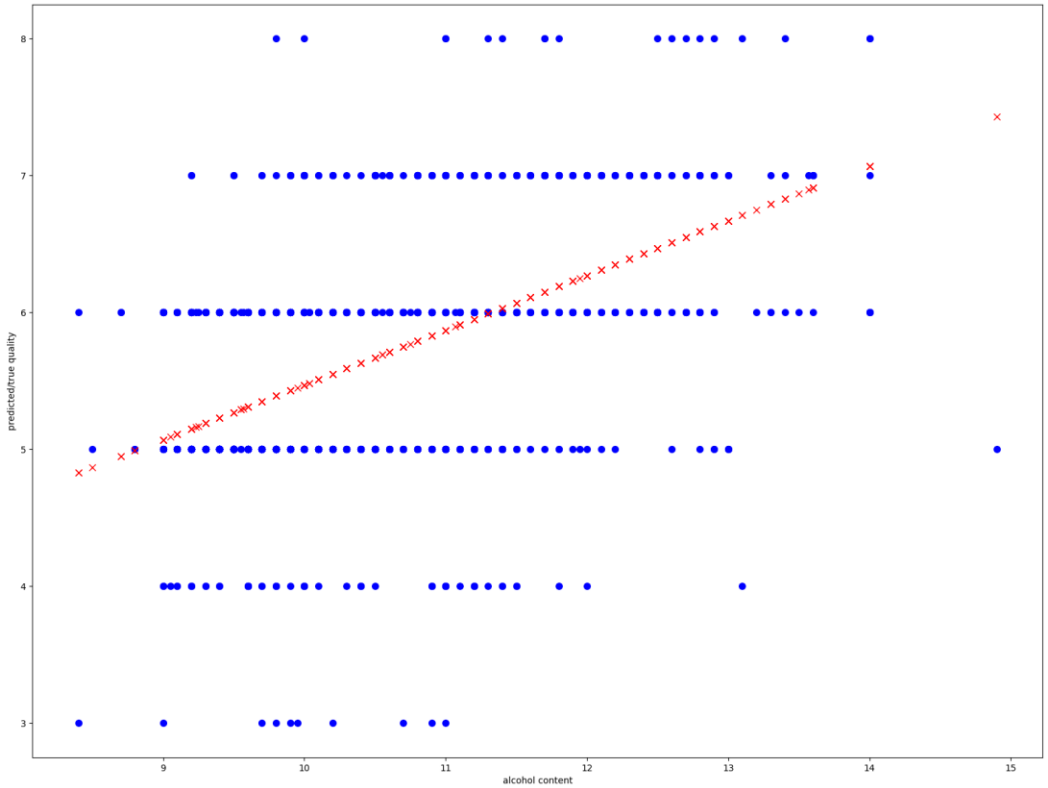
simple linear regression manually

- $\hat{y} = k * x + d$
- calculate $\hat{y}$ for a bunch of different combinations of k and d
- for each combination calculate the sum of squared residuals
- the combination of k and d which results in the smallest sum of squared residuals is used for our model

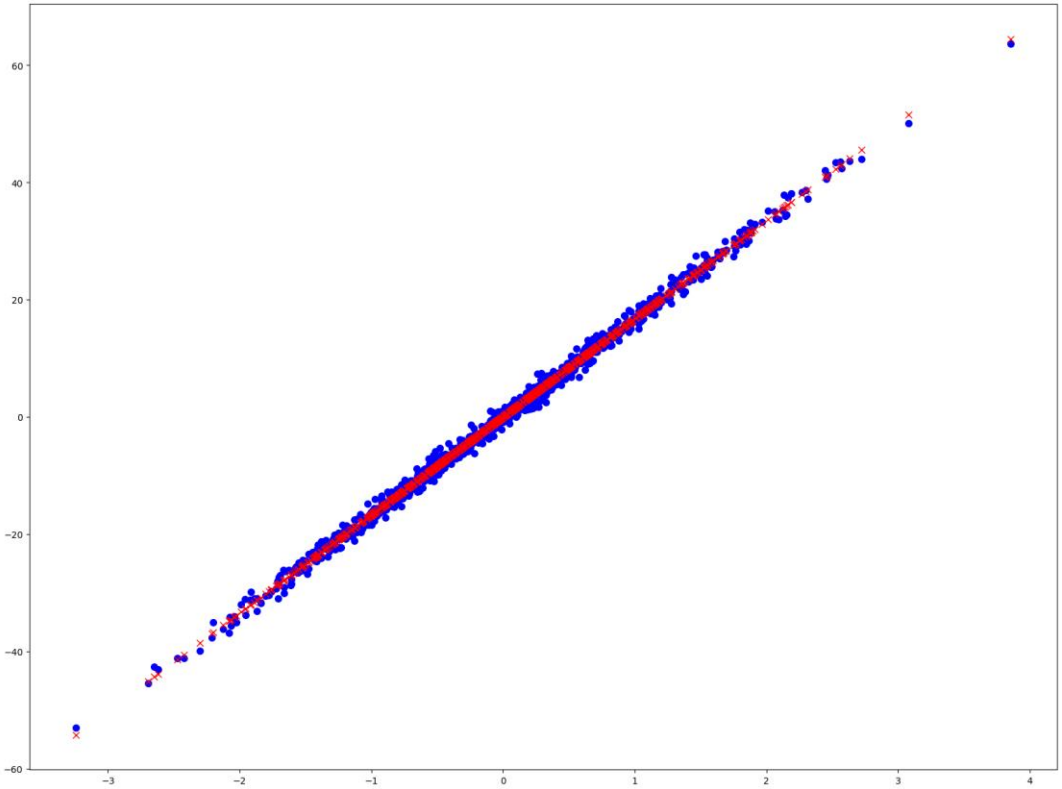
simple linear regression



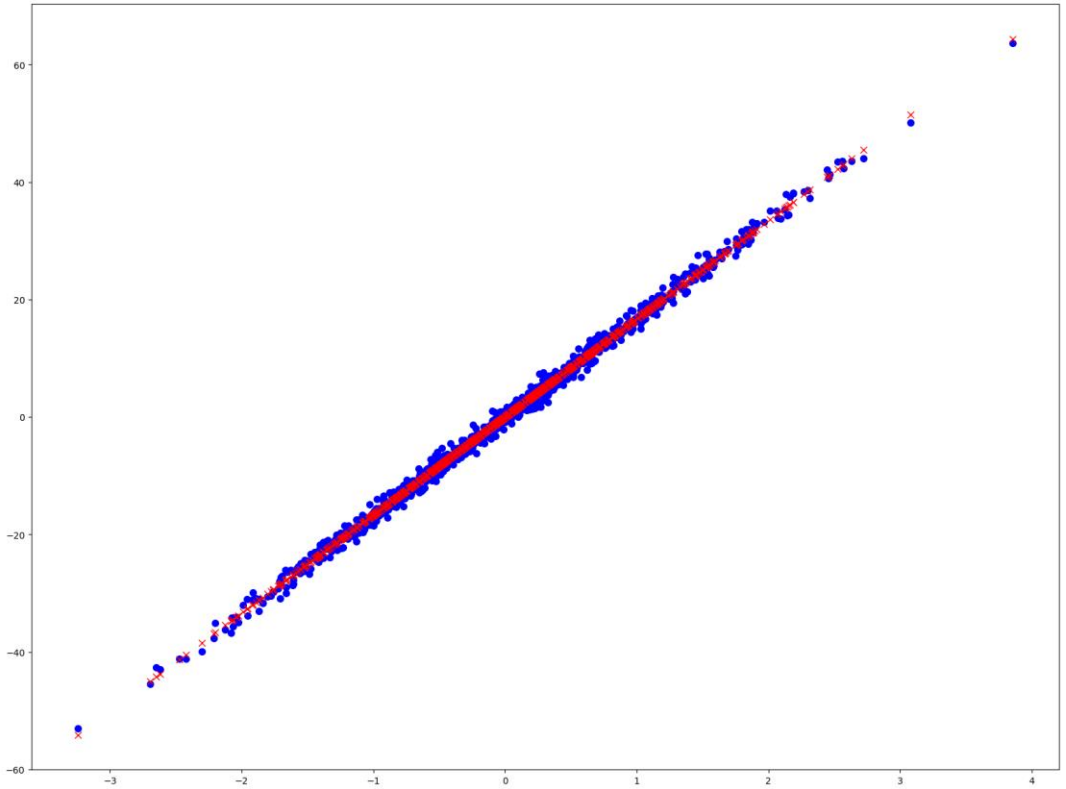
simple linear regression manually



simple linear regression



simple linear regression manually



simple linear regression